


Listing of Claims

Claim 1 (Currently Amended): A method of inspecting a target object to be inspected, comprising the steps of:

bringing about a fritting phenomenon using at least one probe in a part of the insulating film formed on an inspection electrode of the target object to be inspected so as to break a part of the insulating film;

 bringing ~~an inspecting~~ the at least one probe, used to bring about the fritting phenomenon, into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by the fritting phenomenon; and

inspecting the electrical characteristics of the target object by using a tester connected to the ~~inspecting~~ at least one probe.

Claim 2 (Currently Amended): The inspection method according to claim 1, wherein said step of breaking a part of the insulating film comprises the steps of:

bringing a the at least one probe into contact with the inspection electrode of the target object to be inspected; and

applying a voltage between the at least one probe and the inspection electrode so as to bring about the fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

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Claim 3 (Currently Amended): The inspection method according to claim 1, wherein said step of breaking a part of the insulating film comprises the steps of:

bringing ~~a first~~ the at least one probe and a second probe into contact with the inspection electrode of the target object; and

applying a voltage between the ~~first~~ at least one probe and the second probe so as to bring about the fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

Q3
Claim 4 (Currently Amended): The inspection method according to claim 3, further comprising the step of inspecting the electrical characteristics of the target object to be inspected by utilizing ~~as the inspecting probe~~ at least one ~~of the first probe~~ and while the second probe remains in contact with the surface of a part of the inspection electrode, the insulating film of the part having been broken by the fritting phenomenon which has been brought about within the insulating film.

Claim 5 (Currently Amended): The inspection method according to claim 4, wherein said step of inspecting the electrical characteristics of the target object to be inspected by utilizing the at least one ~~of the first probe~~ and ~~the second probe as the inspecting probe~~ further comprises the step of electrically disconnecting the second probe not being used for as ~~the inspecting probe~~, from at least one of the tester and the inspection electrode.

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Claim 6 (Currently Amended): The inspection method according to claim 5 3, wherein said step of inspecting the electrical characteristics of the target object to be inspected by utilizing the at least one probe further includes electrically disconnecting the second probe from the inspection electrode ~~comprises the step of electrically~~ by physically separating the second probe ~~not utilized as an inspecting probe~~, from the inspection electrode.

Q3
Claim 7 (Currently Amended): The inspection method according to claim 6, wherein said physically separating step is performed by utilizing at least one of a piezo element, a bimetal, and an electrostatic element.

Claim 8 (Withdrawn): An inspection apparatus of a target object to be inspected, comprising:

a power source circuit for applying a voltage to a part of the insulating film formed on an inspection electrode of the target object so as to form a predetermined potential gradient in at least a part of the insulating film, a fritting phenomenon being formed in the insulating film by the predetermined potential gradient so as to break a part of the insulating film;

an inspecting probe that is brought into electrical contact with the surface of a part of the inspection electrode, the insulating film of the part of the inspection electrode having been broken by the fritting phenomenon; and

a tester connected to the inspecting probe so as to inspect the electrical characteristics of the target object to be inspected.

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Claim 9 (Withdrawn): The inspection apparatus according to claim 8, further comprising a current limiter for limiting the current flowing between the probe and the inspection electrode.

Claim 10 (Withdrawn): The inspection apparatus according to claim 8, wherein said current limiter for forming a predetermined potential gradient in at least a part of the insulating film comprises:

a first probe and a second probe each brought into contact with the inspection electrode of the target object to be inspected; and

a power source circuit for applying a voltage between the first probe and the second probe, said voltage serving to bring about a fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

Claim 11 (Withdrawn): The inspection apparatus according to claim 10, wherein at least one of the first probe and the second probe is formed of at least one material selected from the group consisting of tungsten, palladium and a beryllium-copper alloy.

Claim 12 (Withdrawn): The inspection apparatus according to claim 8, further comprising a controller for controlling the power source circuit, and a communication circuit for connecting the controller to the tester.

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Claim 13 (Withdrawn): The inspection apparatus according to claim 12, wherein said means for forming a predetermined potential gradient in at least a part of the insulating film is incorporated in the tester.

Claim 14 (Withdrawn): The inspection apparatus according to claim 13, wherein said current limiter for limiting the current flowing between the probe and the inspection electrode is incorporated in the tester.

PS
and
Claim 15 (Withdrawn): The inspection apparatus according to claim 13, wherein said power source circuit for forming a predetermined potential gradient in at least a part of the insulating film comprises:

a first probe and a second probe, which are brought into contact with the inspection electrode of the target object to be inspected; and

a power source for applying a voltage between the first probe and the second probe, said voltage serving to bring about a fritting phenomenon in the insulating film formed on the surface of the inspection electrode.

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In the Drawings

The attached sheet of drawings includes changes to Figs. 2 and 6. These sheets replace the original sheet including Figs. 2 and 6.

Attachment: Replacement Sheets